



Infectious Synovitis

Cause

This disease is caused by *Mycoplasma synoviae* (Ms).

Transmission

The major mode of transmission of Ms is vertical (egg) transmission from Ms-infected breeder hens. Horizontal transmission from bird to bird and by infected equipment, clothing, shoes, egg boxes and other fomites.

Clinical signs and gross lesions

Vary from asymptomatic infection to mild respiratory signs, airsacculitis and synovitis, an inflammatory swelling of the joints of legs and wings and inflammation of the sternal bursa ("breast blisters").

Creamy exudate in joints extending into tendon tissues is indicative.

Airsacculitis with frothy to cheesy exudates in the airsacs can be found, especially if secondary infection with *E. coli* is present.

Diagnosis

Blood serum testing for specific Ms antibodies with Ms antigen and the findings of specific lesions are indicative of Ms infections. Isolation of the causative Ms organisms is decisive for diagnosis.

Differential diagnosis

Staphylococcus arthritis can also cause swollen joints with a creamy exudate sometimes extending into the tendon sheaths. Reovirus infection can also cause swelling of joints and tendon sheaths, but the exudate is more watery or bloodtinged, unless secondary *Staphylococcus* infections occur.

Treatment and control

Ms infections can be treated with antibiotics with variable degrees of success (tetracycline, erythromycin, tylosin, tiamulin). However, control of Ms has been largely successful by blood testing of breeder chickens and elimination of positive Ms reactors.